

DARWIN AND GOWER STREET



Darwin and Gower Street

**An Exhibition in the
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University College London
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Foreword

Charles Robert Darwin was born at his father's house, The Mount, Shrewsbury, on 12 February 1809. He died at Down House on 19 April 1882, in the seventy-fourth year of his age.

He lived at Number 12 Upper Gower Street from 1 January 1839 until 16 September 1842. The house has gone but the site is a part of this College. To commemorate the hundredth anniversary of his death, the Biological Sciences Building has today been renamed the Darwin Building. Professor Richard Darwin Keynes F.R.S., Darwin's great-grandson, has unveiled a plaque.

This exhibition is intended to show first of all Darwin's connection with the College, with portraits of some of the people he knew and worked with, secondly samples of manuscript material held, and thirdly a general didactic illustration of his printed work. We hold no specialized collection of his printed work, but as a large academic library for teaching and research we hold all his first editions as well as a representative sample of later editions. The display is completed with a few portraits of Darwin and other memorabilia.

19 April 1982

Introduction

H.M.S. Beagle made landfall on 2 October 1836 at Falmouth. She had been away for four years and ten months. Darwin disembarked, never to leave the British Islands again, and went home to Shrewsbury. He was twenty-seven, had a B.A. without honours from Cambridge and had already given up any idea of becoming a Church of England clergyman. But he knew what he wanted to do, which was to get the material that he had collected sorted and distributed amongst those who were prepared to describe it, write up his geological notes himself and enter into the scientific life of Cambridge and London. He did not yet see far into his future. His father, who was well off and was already supporting his elder son Erasmus in London, was quite content to go on giving him an allowance. Erasmus had qualified as a physician, but he did not enjoy good health and so did not practice.

At the end of the month the Beagle had reached Greenwich to unload before going on to Woolwich to pay off. Darwin went down to collect the rest of his specimens and his personal belongings and took them to London, to his brother's house at 43 Great Marlborough Street, just east of Regent Street. He also took with him his servant Syms Covington who had originally been a boy on the ship until Captain FitzRoy had released him to look after Darwin. Much of what he had collected around the world had already been shipped to Cambridge, where his old friend and mentor Professor John Henslow had sorted and conserved it. He went to Cambridge early in December and stayed there until the spring, but before doing so he spent ten days at his uncle Josiah Wedgwood's house, Maer Hall. There he met again his cousins, including his future wife Emma, as well as many young neighbours with whom he had been brought up.

The rest of 1837 was mostly spent in London, first with his brother and later a few doors away at Number 36 where he took furnished lodgings with Covington to look after him. He had been writing up his *Journal and remarks* which was to be printed as the third volume of FitzRoy's *Narrative* of the first and second voyages of the Beagle. He had found suitable people to describe all the vertebrates that he had brought back and had got a grant of £1,000 from the Treasury to go towards the cost of publication. He indulged in some social round, dining with his brother and Wedgwood relatives and with geological friends, or using the Athenaeum. This continued through the winter of 1838, but in the summer he went by steamer to Leith for a geological tour which included eight days at Glen Roy, to study the famous parallel roads. He wrote his findings up in a paper which he was later to describe as 'one long gigantic blunder from beginning to end'. On his way back he went to see his father and then on to Maer. It must have been on this visit that it became clear to him that his feelings for Emma were more than those of a cousin and that these feelings were reciprocated. Two months later he was at Maer again and on his third day there (11 November 1838) proposed to Emma and was accepted. He went to Shrewsbury the next day to tell his father and his sisters, then back to Emma, and to London on 20 November.

Emma came to London on 6 December, staying with her brother Hensleigh, and she and Charles went house hunting. What they were looking for was somewhere quiet, somewhere central enough for them both to reach theatres and concerts and for Charles to attend his learned societies, and somewhere within their means. They would have Charles' allowance from his father, plus perhaps something from investments, and Emma's marriage settlement, a little over £1,000 a year, enough for a comfortable life commensurate with their upbringing.

They looked at once to Bloomsbury, especially to the Bedford estate. This area had

been developed since quite early in the eighteenth century and some of the squares built by Thomas Cubitt, such as Tavistock and Gordon, were new. The estate was unusual because it contained almost no shops, its residents having to go to the Tottenham Court Road or to Marchmont Street for their daily needs, or to rely on deliveries. It had no public houses and almost no mews. Its residents would not be carriage folk and the more noisy and disorderly elements would not be attracted in. Some of this character can still be seen today although it was quickly overshadowed by the effects of the main line railway termini and later by the mere ugly bulk of the ever-growing University of London. There are still no pubs on the old estate.

The Darwins found few houses to let and what they did find were too expensive. Whether they saw 12 Upper Gower Street together, or whether Charles made up his own mind is not known. What is certain is that on Saturday 29 December he paid some advanced rent, took over the keys, and wrote to Emma that evening to tell her that he had done so. He and Covington started packing up the next day, the bulky and weighty Beagle material taking a long time. On the Tuesday morning they moved and slept in Number 12 that night. Covington probably stayed on for a bit while Darwin arranged servants and then he left. There is an entry in Darwin's made-up accounts for 25 February 'Present to Covington on leaving me £2', but this was four weeks after the wedding. He is known to have emigrated to New South Wales later in 1839, working his passage as a cook, and ended up keeping a general store and post office in Pambula. Darwin, in characteristic fashion, kept in touch and Covington sent him large numbers of barnacles, which were reciprocated by an ear trumpet for his increasing deafness.

Having moved in, Darwin had a busy month ahead of him. On 11 January he went to Shrewsbury to see his father and sisters and over to see Emma on the 15th. On Thursday the 24th he heard that he had been elected to Fellowship of the Royal Society and went to Shrewsbury again the next day. The whole family went to Maer on the Monday, where Charles and Emma were married at St Peter's church on the Tuesday, by the Rev. John Allen Wedgwood the Vicar who was a first cousin to both of them. They returned to London that evening by train and spent their first married night in their own home.

What then was Upper Gower Street like when the newly-weds moved in? Bedford Square had been developed just after the middle of the eighteenth century with quite spacious terrace houses and a central communal garden. Gower Street ran from the northeast corner of it, eighty-six houses with long gardens behind. The houses were smaller than those in the square, but still with quite decent rooms. The square and its garden are largely intact today, but Gower Street has been much spoilt by modern buildings particularly on the eastern side. It ended at what is now Torrington Place. The next short stretch northwards, named Upper Gower Street, was developed in 1789. It ran as far as the Carmarthen estate where the road became private and had a gate. Beyond that was part of Lord Southampton's land where the road continued, as Gower Street North, as far as the New Road, now the Euston Road, and continued beyond it as George Street. By Darwin's day the Carmarthen estate had become the University of London, including the hospital site on the western side, but the road was still private.

Upper Gower Street was developed as a single project of fifty-three closely uniform houses, numbered 1 to 25 on the east side from south to north and 26 to 53 on the west running the other way. The renumbering of the whole length of this road was assigned in 1864, although the College did not sell its stretch until 1892.

Darwin tells us little about the house itself or about how they had apportioned the rooms. He had taken a lease and bought the existing furniture. He told Emma, before they were married, that he had stored his specimens in one of the top floor rooms, that

he enjoyed the thin garden at the back, about ninety feet long, around which he could take exercise, and that he had christened the house 'Macaw Cottage' from the bright yellow curtains in the drawingroom. Francis Darwin, in *Life and letters*, dismisses it as 'a small common-place London house, with a drawing room in front, and a small room behind, in which they lived for the sake of quietness'. After Darwin's death his cousin, Emma's brother, Hensleigh Wedgwood, the philologist, moved into Number 94, which had been Number 4 in Darwin's day and was built on exactly the same plan. A recent biographer of the Wedgwoods has described this house as 'a spacious house with light, well-proportioned rooms' and Hensleigh's private room as 'twenty-four feet by eighteen feet, on the first floor'. Perhaps Francis, used to Down and spacious Darwin houses in Cambridge, had never been inside Number 12.

The house had a frontage of twenty-four feet, with a basement and area with steps. The ground floor and two storeys above it had three lights on the street side and bays at the back. The staircase was at the back. There were attics, with two dormer windows at the front and one or two behind. The kitchen premises were in the basement with a bedroom for the manservant at the back. The dining room was on the ground floor next to the front door, with a room at the back which was probably Darwin's study. The main drawingroom, corresponding to Hensleigh Wedgwood's living room mentioned above, was on the first floor. There was a smaller room with a bay window behind, which was the room the family used when they were alone; in it Emma kept the Broadwood grand pianoforte which had been a wedding present from her father. It is now in the drawingroom at Down House and in fine condition.

The family bedrooms, including later the nursery, were on the second floor and it was here too that Darwin originally stored his bulky Beagle material, although much of it was dispersed and the rest probably ended up in his study. The female staff slept in tiny rooms in the attic. Nothing is said about sanitation, but the house would have been on mains water and sewerage from the beginning. There was probably a lavatory at the ground floor back, or on a half landing, with another outdoor one in the basement. There were no bathrooms. The narrow garden ran back to Gower Mews North. Francis Darwin described it as 'a small space of dingy grass', but it was probably better than that. A contemporary print shows an adjacent one with shrubs and some flowers.

Emma would not have found the problem of dealing with servants any difficulty, although it was one which beset many newly-weds. Her mother had been bedridden for years and she and her sisters had learnt to run a large house between them. The Darwins had a cook, Emma's personal maid, a manservant and probably one other woman. Emma would rather have had only women and they had some trouble in finding the right man until the excellent Joseph Parslow arrived in 1840. He went on with them to Down House where he became butler and only left on retirement in 1875. She also had some difficulties with cooks, having to show firmly that she was mistress of her house until she was suited.

To begin with they lived quite a social life. Friends from all over the town called and they returned the calls. Some dinner parties were given for them, where doubtless Emma enjoyed bride's precedence, and they gave some themselves. Charles Lyell, Professor Henslow from Cambridge, Leonard Horner and their wives are recorded, as well as bachelor brother Erasmus. Charles' scientific life included the Geological Society of which he was Secretary, the Royal and more rarely the Zoological Societies. During the summer they went twice to Maer and to Shrewsbury. In August they went to the British Association meeting at Birmingham, which one feels must have bored Emma and most of the other wives. His work on the Beagle material went ahead. His *Journal* at last

appeared in the summer and was received with acclaim. Six numbers of the *Zoology of the Beagle*, of which he was editor, came out that year so that more than half was now out. He published only two papers in serials that year of which one was the long but erroneous article on the parallel roads of Glen Roy, his only contribution to the *Philosophical Transactions of the Royal Society*.

More important perhaps was what he was working on with a view to future publication. The most immediate aim was to get out his geological results of the Beagle voyage which eventually appeared in three volumes from 1842 to 1846. The more important was the accumulation of notes on the species problem, some from the mass of published information, some from answers to the circular *Questions about the breeding of animals* which he had distributed in the spring of 1839 to farmers and landowners.

Emma became pregnant in April and by the early autumn they slowed down their social life, living quietly at home as much as possible. Their first child, William Erasmus, was born on 27 December 1839. Right from his birth Charles observed the behaviour of the child and made notes on it which he was to write up and publish nearly forty years later in *Mind*. However, these last few months of their otherwise happy first married year were marred by Charles' repeated bouts of unwellness; nothing specific, but stomach upsets and general malaise which depressed him and slowed down the intense pattern of work which he had set himself.

As soon as the spring came they went north to show the child to their families and they spent most of the summer there. Charles was working, more slowly than he would have wished, on his Beagle geology and he published two geological papers later in the year. Only three numbers of the Beagle *Zoology* came out, the completion of Part I, Richard Owen's *Fossil Mammalia*, and the first two numbers of the *Fish*. Collection of facts on species went on, but slowed by being away from libraries.

Emma was pregnant again in June and they all returned to London in November. Their second child, Anne Elizabeth, was born in March 1841. She was to die ten years later 'of a fever' and Charles was always to remember her as his favourite child. All that he published in 1841 was three papers, two on points of Beagle geology and a most interesting one on how humblebees steal nectar from flowers by drilling holes at their bases. This was his first paper based on patient watching of insects in the field in England, most of the observations being made in the Zoological Society's gardens in the Regent's Park.

The summer of 1841 was spent much as that of the previous year, although they were with their families for only three months instead of nearly six. Charles' health continued to be indifferent and it was probably late that year or early in 1842, when Emma knew that she was pregnant once more, that they decided to move to the country. The manuscript of the first part of the Beagle geology, *Coral reefs*, was finally with the printer in January and the book appeared in May. They went north in the same month and in June Charles went for ten days to North Wales geologizing whilst Emma stayed at Shrewsbury with the children. His observations on the indications of recent glaciation shown on the old rocks of the region were amongst the earliest made; these he wrote up as soon as he returned to London and they were published in September.

They had now finally decided to leave London for some not too far country place from which Charles could come to town for his scientific duties and needs. He had probably arranged to borrow the house price from his father during this visit. Robert was now seventy-six, grossly fat and more or less confined to a wheel-chair, so that they both knew that Charles was only borrowing ahead of his inheritance. After a few unsuccessful sorties, they first saw Down House on 24 July and slept at the George and Dragon in Downe that night.

They now acted swiftly, bought the house with eighteen acres of garden and paddock, started clearing Upper Gower Street and moved. Emma went with the children on 14 September 1842 and Charles followed on the 17th. Their third child, Mary Eleanor, was born on the 23rd, but died twenty-four days later. They lived at Down House for a few months short of forty years; their other seven children were born there and Charles died there. After his death, Emma continued to live there in the summers, but wintered in Cambridge where three of her sons and their families, all her grandchildren, then lived. She died at Down House in 1896.

Two final questions need brief answers. Did Darwin ever come into University College, either when he lived at Number 12 or later, and what happened to his house after he left? When the Biological Sciences Building was first opened, it was suggested at the time that it should be named after Darwin. Professor F. R. Winton, then Professor of Pharmacology, asked if there was any evidence that he had ever set foot inside the College. Nobody knew and the suggestion was dropped. There is no evidence today that he ever did whilst living at Number 12, but to think that he should or ought to have done so is to misunderstand what went on there. Wilkins' great portico, with its two junction blocks and short wings, contained behind it the founder professors, a few hundred students, much younger than they are today (the youngest fourteen), the boys' school, a handful of administrators and a few servants, nobody else. It is easy to think of the College of 1840 in terms of today's hive of work, with a vast technical and administrative structure to support it, but it was not so. The professors were each alone in their fields; they came and gave their lectures, some with a few necessary practical classes, and they went away. The students listened to them, and they went away. Darwin knew at least three of our founder fathers and probably met others at meetings of learned societies. Leonard Horner, the first and only Warden, was probably the one he knew best socially, but he had resigned before the Darwins came to Number 12. Horner had entertained Darwin in Edinburgh; he had six daughters, three of whom had married Darwin's friends. Charles Lyell, his soldier brother Henry, and Sir Charles Bunbury, another geologist. Later on, when the College had begun to take on its present pattern of teaching and research, there is written evidence that Darwin did visit us at least once. The details are given under the portrait of George Romanes in the first case.

However, whether he came into the old College rectangle is irrelevant. The Darwin building is now so-named because it contains within it the only space, and it is only space, anywhere where he lived as his home, which is now devoted to academic purposes. When he was at Edinburgh, he lodged with Mrs Mackay at 11 Lothian Street. The house once bore a plaque, but the site is now part of a student building and the plaque has disappeared. At Cambridge, he was first in lodgings and then in college. His set in the front court of Christ's bears a plaque, but there, as at Edinburgh, it was not his home. His father's house, the Mount, Shrewsbury, now the local Inland Revenue office, was. Down House belongs to the Royal College of Surgeons of England, but, although it marches with their research farm, it is a memorial and not a place of work.

What happened to the Darwins' house after they left is not known in detail. Some facts are given under Items four and seven in the first case. When Messrs Schoolbred built what is now Foster Court, Number 12 and some other houses were used as their offices. After Schoolbreds collapsed, the College bought the warehouses and stables, but not the houses, although the one on the corner, Number 88, became the School of Journalism for a time. When Number 12 was bombed in the spring of 1941, it was not rebuilt and its last remains were demolished with the rest of the terrace before the Biological Sciences and Engineering Buildings were built.

The illustration on the front cover of this catalogue is from a pen and ink drawing by Dr Mary Whitear. It shows Charles and Emma, with their infant son William, on the steps of Number 12 in the spring of 1841. Dr Whitear examined later photographs of Number 12 as well as the surviving doorways of houses on the west side of the street. The structural details are therefore as accurately reconstructed as possible. The only artistic licence taken is in the rams' heads and swags on the door frame. When the houses were finally demolished, Professor Hector Corfiato rescued from the rubble in the skips two pairs of these decorative deal carvings, one with lions and one with rams, both with their vine leaf and grape swags. Their fine detail was obscured by more than a hundred and fifty years of paint. Two pairs of lions' heads, with swags, survive on the west side of the road, but the photograph of Number 12 does not show them. Dr Whitear has preferred to think that Darwin's house originally had a pair and has drawn them in from the surviving set with rams' heads.

I have not given full bibliographical details for the books which are shown in the third to the seventh cases; to have done so would have been beyond the needs of an exhibition. I have however given 'F' numbers in brackets, so that anyone wishing more detail can find it easily. These numbers refer to my *The works of Charles Darwin; an annotated bibliographical handlist*, Second edition, 1977. In the eighth case, I have given the names of those people who have so kindly found them for me in their travels. Finally, I have put my name to this catalogue only because I wrote it. Putting together an exhibition needs the help and cooperation of a number of people, both in the Library and elsewhere. I am most grateful to them all.

First Case — DARWIN AND GOWER STREET

This case illustrates what has been said in the Introduction. Firstly the Darwins themselves, then their house are shown. The next photographs are of their friends and scientific acquaintances who were associated with the College, and the last two are of the only descendants who are known to have been here as students.

1. Charles Robert Darwin, M.A., F.R.S., 1809–1882

From a water colour by George Richmond, R.A. (1809–1896). Charles and Emma had intended to have this and the following done in 1839, as wedding portraits, but they seem to have delayed until March 1840. Richmond was a fashionable portrait artist in water colour or pencil for many years. He tended to flatter his sitters, especially by making them appear younger than they were. The originals of this and the following portraits are at Down House.

2. Emma Darwin, 1808–1896

From a water colour by George Richmond. This was made at the same time as the twin portrait of Charles, Number 1 above. It too is at Down House.

3. Charles Darwin with his firstborn William Erasmus, 1839–1914

A modern copy from a daguerrotype which was taken on 23 August 1842; the photographer is unknown. It was taken less than a month before the family moved to Down House. This is the only portrait of Darwin with one of his young children. These first three are the only contemporary pictures of the Darwins when they lived in Upper Gower Street.

4. Number 110 Gower Street, earlier Number 12 Upper Gower Street

Darwin took up residence here on New Year's Day 1839, a Tuesday. He married Emma Wedgwood, his first cousin, at Maer, Staffordshire on the 29th, and brought her home by train the same evening. They lived here for three years and seven months, before moving to Down House, Downe, Kent, where they spent the rest of their married lives. Emma left, with their two children, on 14 September 1842 and Charles followed on the 17th. The house remained substantially as they knew it until it was bombed in the spring of 1941. The London County Council blue plaque was put up on 13 December 1904. It read 'Charles Darwin, Naturalist, lived here, 1838–1842'.

The first date was wrong, although it is true that Darwin had taken over the keys of the house on 29 December. The present plaque on the Darwin Building was put up in 1961; it perpetuates the error.

5. Numbers 110 and 108 Gower Street

Shows these houses as they were after being bombed in the spring of 1941. The left hand half of the photograph shows one diningroom and one drawing-room window of Darwin's house. Some rubble had already been removed and the houses were later demolished.

5a. Two houses on the west side of the street as they are today

The left hand house, Number 89, is closely similar to Darwin's house, with the dormer windows, except that the small panes of glass have been replaced by two large ones and the tracery in the fanlight of the front door has gone. The right hand one, Number 91, has the small panes and the tracery, but the front wall has been raised.

6. Plan of original site of the College, 1824

The original University site included the area to the west of the road, which was later used for the hospital, as well as the road itself. The terraces on both sides of the road south of our site were developed in 1789 and named Upper Gower Street. The house which was to become the Darwins', Number 12, is not detailed on this plan, but is marked here in red. The original is an ink sketch with colour wash.

7. Plan of the College rectangle as it was in 1939

Upper Gower Street was taken over by the Council in 1864, its name changed to Gower Street and new numbers assigned for its whole length, although the College did not sell its private bit until 1893. The Darwins' house then became Number 110. Their garden was built over as a stable by Messrs Schoolbred. The Department of Egyptology and the boiler house now occupy the building, the horse ramp to the first floor is still there.

8. Sir James Mackintosh, P.C., M.P., F.R.S., 1765–1832.

Mackintosh was one of the twenty-four members of the Council of the University who were elected in 1826. He was a philosopher and a liberal statesman. Darwin met him at Maer Hall, the home of Josiah Wedgwood [II],

in 1827. His second wife, Catherine Allen, was a sister of Elizabeth, Josiah's wife, and Emma's aunt. Darwin described him as 'the best converser I ever listened to'. His children, by both marriages, remained friendly with the Darwins later.

9. Leonard Horner, F.R.S., 1785--1864

First and only Warden of the University of London 1827--1831. Horner was a geologist and son of a linen draper of Edinburgh. He resigned as Warden after quarrelling with his professors and became a Factory Commissioner. In 1826, he had taken Darwin to a meeting of the Royal Society of Edinburgh when Sir Walter Scott was in the chair. In London, he was a member of a whig circle and friend of Darwin's brother Erasmus. He was a guest at one of the first dinner parties which Emma gave. He had six daughters, three of which were married to friends of the Darwins.

10. Robert Edmond Grant, F.R.S., 1793--1874

Professor of Comparative Anatomy and Zoology 1827--1874, the last survivor of the original professoriate. Grant was still at Edinburgh when Darwin was up and they were both active members of the Plinian Society, collecting together, particularly on the shores of the Firth of Forth. He did some good work then, especially on sponges, but, as Darwin wrote, 'he did nothing more in science, a fact which has always been inexplicable to me'. T. H. Huxley wrote later of him 'I met nobody, except Dr Grant, of University College, who had a word to say for evolution -- and his advocacy was not calculated to advance the cause'. His early friendship with Darwin did not develop, perhaps due to a dour and bad tempered personality.

11. Daniel Oliver, F.R.S., 1830--1916

Professor of Botany 1861--1888. He held the chair on a part-time basis, continuing to work at the Royal Botanic Gardens, Kew, under Sir Joseph Hooker. He was a long standing and important correspondent of Darwin on botanical matters. Darwin described him as 'the all-knowing Oliver' and 'Oliver the omniscient'. He always lectured at eight o'clock in the morning.

12. Sir John Eric Erichsen, Bart, F.R.S., 1818--1896

Professor of Surgery 1850--1877. Erichsen was a member of the Royal Commission on the practice of subjecting live animals to experiments, to which Darwin gave evidence in 1875. Darwin was most strongly against all

forms of cruelty and, although he accepted the need for experimental vivisection, spent much time discussing its problems with those involved.

13. Sir Francis Galton, F.R.S., 1822–1911

Galton was never a member of the College staff, but he endowed the Chair of Eugenics which bears his name and was a benefactor of the College in this field. He was a half first cousin to Darwin, sharing Dr Erasmus Darwin as a common grandfather. In 1879, Darwin answered his circular *Inquiries into human faculty*, and they were fairly frequent correspondents. Almost all the Darwin manuscript material which the College holds came from Galton.

14. George John Romanes, F.R.S., 1848–1894

Romanes was never on the staff of the College, but he worked in the Physiology Department for some years before moving to Oxford. He was an expert on the nervous systems of lower animals and on behaviour. He first met Darwin in 1874 and they became firm friends. In a letter of 10 December 1881, Darwin recalls a meeting here, where James Cossor Ewart was present, at which they discussed bacteria. This was the only occasion when Darwin is known to have visited the College. The letter is in the library of the American Philosophical Society, Philadelphia.

15. Sir John Scott Burdon Sanderson, Bart, F.R.S., 1828–1905

Professor of Physiology 1874–1882. A physician and physiologist, he helped Darwin with experiments which were published in *Insectivorous plants*, 1875. Sanderson was much involved in the controversies on vivisection.

16. Sir Edwin Ray Lankester, F.R.S., 1847–1929

Professor of Zoology and Comparative Anatomy 1874–1890. He had an important influence on the teaching of zoology both here and abroad, being the founder of the type system of teaching. In 1872 Darwin wrote to him 'I can clearly see that you will some day become our first star in Natural History'. In 1881 Darwin wrote a testimonial for him in his application for the Edinburgh chair; he got it and held it briefly in plurality.

17. Gwendolen Mary Darwin, 1885–1957

Miss Darwin, the eldest child of Sir George Darwin, was the first of the family who is known to have been at the College. She attended the Slade School of Fine Art between October 1908 and March 1911. She is better remembered by her married name, Mdme Jacques Raverat, as an illustrator. Her book *Period piece*, 1952, which she illustrated herself, is a most interesting and amusing study of Darwin's children and grandchildren at Cambridge and Down House. This self portrait shows her with her younger sister Margaret, later Lady Keynes, at her father's house, Newnham Grange, Cambridge, in about 1903. They are entertaining the French Ambassador, M. Paul Cambon, before lunch.

18. Gillian Phyllida Barlow, 1944–

Miss Barlow, now Mrs Fabian Peake, is the grand-daughter of Nora, Lady Barlow, Sir Horace Darwin's daughter. She is thus a great great grand-daughter of Charles. She was at the Slade School of Fine Art as a full-time student from 1963 to 1966, with a further year part-time. Her diploma subjects were sculpture and etching and she was awarded five prizes. She is the only member of this fourth generation who is known to have been at the College.

Second Case – MANUSCRIPT

The College holds only one important collection of letters from Darwin, those to Francis Galton (1822–1911). Galton and Darwin were half first cousins, sharing Dr Erasmus Darwin as a common grandfather. There are more than forty letters in the archive, probably representing almost their entire correspondence which continued up till Darwin's death. Apart from this collection, there are only a few letters from various sources; they are mostly inserted into books. Darwin's hand is notoriously difficult to read. At its best, accurate transcription needs practice, and at its worst, Darwin himself admitted that he sometimes found it difficult to read. In his later years, he used to pass the manuscripts of his books to a copyist, often the Downe schoolmaster, to be made ready for the printer. Emma, or one of his sons especially George or Francis, took his letters from dictation and he only signed them.

19. Letter, Darwin to Daniel Sharpe, undated [January 1847]

Daniel Sharpe (1806–1856), F.R.S. was in the Portuguese mercantile trade and an able amateur geologist. Darwin is commenting on the manuscript of a paper on cleavage in slate which was published in the *Quarterly Journal of the Geological Society*, Volume III, pp.74–105. Sharpe and Darwin were both on the Council of the Society at this time, when Charles Lyell was President. This is the earliest letter by Darwin which the College holds. It was given by Professor Egon Sharpe Pearson in 1967.

20. Postcard, Darwin to Francis Galton, dated August 1 [1872]

This early example of an official postcard reads 'I have just heard that our carrier, Mr Snow (put his name on address i.e. "to care of Mr Snow") has returned to his former period and leaves the Nag's Head every *Thursday* morning. — C. Darwin'. This probably refers to Galton supplying Darwin with live fancy rabbits for breeding experiments. George Snow (1811–1885) delivered from Downe village to the Nag's Head public house in the

18a Hilda Horatia Barlow, 1919--

Miss Barlow, now Mrs John Hunter Padel, is the daughter of Nora, Lady Barlow, Sir Horace Darwin's daughter. She is thus a great grand-daughter of Charles. She read Zoology at the College from 1938–1941. During her second two years the Department was evacuated to University College Bangor. She worked later for the Imperial Cancer Research Fund. Three of her brothers completed their medical education at University College Hospital.

22. Manuscript leaf of 'On the origin of species', [1859, before August]

Darwin did not keep the manuscript of *The origin* together and what survives of it is widely scattered. He started work on it in July 1858 and it was accepted for publication by John Murray in April 1859, on sight of the first three chapters. It was all in corrected proof, except the index, by early September, and publication day was 24 November. This single sheet is a fair copy, in brown ink on blue paper, and corresponds closely, with minor changes in proof, to the printed text, which is in Chapter VI, page 203. The holograph was given by Mrs R. B. Litchfield, Darwin's daughter Henrietta, to Professor Karl Pearson in August 1923. It was given to the College by his son Professor Egon Pearson in November 1967.

23. Manuscript leaf of 'The descent of man', 1871, [?1870]

The College holds four leaves of manuscript for *The descent*; all four are rough early drafts which could not have been used for printer's copy. In one of them the last eight lines are in Emma's hand. The printed text of the book is particularly difficult because Darwin let his daughter Henrietta correct his style, but what changes she made are not known. The text of the leaf shown occurs in Volume I, Chapter II, page 45. These four leaves were a present from Sir Horace Darwin to Professor Karl Pearson in 1923. In an accompanying letter he writes 'When we were children we often used the blank sides of my father's m.ss . . . as scribbling paper'. They were given to the College by Professor Egon Pearson in 1967.

24. 'Journal of researches', New edition, 1852. Author's presentation copy to Harrison Weir, inscribed in Darwin's own hand.

Darwin was generous with presentation copies; he was also deeply sensitive to the recipients' opinions of them. When a new book was about to appear, it was his habit to send a list of names and addresses to John Murray. Copies would then be sent out, usually just before publication day, inscribed by one of Mr Murray's clerks 'From the Author', without the name of the recipient or the date. Such a copy is shown in Case 6, Number 59. Copies inscribed in Darwin's own hand are seldom seen. Harrison William Weir, 1824–1906, was an artist especially as a book illustrator. He was interested in fancy poultry and pigeons and used to attend meetings of bird clubs to which Darwin also went.

25. Clasp and chain from one of Darwin's cloaks

In his later years Darwin normally wore a short cloak when out of doors. Such a cloak is shown in the engraving of John Collier's oil portrait exhibited. This clasp and chain is put in this exhibition as being the only 'non-library object' which the College owns.

Third Case – THE VOYAGE OF THE BEAGLE

H.M.S. Beagle, the third of the name, made three surveying voyages to South America and, in the second and third, continued around the world. Darwin went on the second voyage as a companion to Captain Robert FitzRoy. He was not the official naturalist on board. She was a sloop brig, rerigged as a barque, with a displacement of 235 tons and length of gun deck 90 foot. She left Devonport on 27 December 1832 and made landfall at Falmouth on 2 October 1836.

26. 1839 FitzRoy, Robert, editor. 'Narrative of the surveying voyages of His Majesty's Ships Adventure and Beagle' etc. 8vo, 3 volumes and appendix to Volume II, London, Henry Colburn. Volume III, Darwin, Charles, 'Journal and remarks'.

This is the first appearance of Darwin's first book which is better known by the title *Journal of researches*. The set has forty-four plates and four charts or maps inserted, as well as eight charts or maps loose in pockets in the top boards. Those in Darwin's volume are of the southern portion of South America and of the Keeling Islands, although in complete sets they are often found muddled up. Darwin's volume was ready long before the others and was in print in 1838, but the set did not appear until August 1839. [F10].

27. 1839 'Journal of researches into the geology and natural history of the various countries visited by H.M.S. Beagle' etc. 8vo, London, Henry Colburn.

Darwin's volume was issued by itself at the same time or shortly after the set came out. It has been argued that this was because it was more likely to sell as a straightforward travel book, which indeed it did. Anyway it cost only 18s., whilst the full set was £3.18s. In this edition 'geology' comes before 'natural history' in the title; indeed throughout the voyage Darwin's chief interest had been in geology rather than in natural history, much of which was mere collecting. [F11].

28. 1845 'Journal of researches into the natural history and geology of the countries visited during the voyage of H.M.S. Beagle around the world' etc. Second edition. 8vo, London, John Murray. Colonial and Home Library Volume XII.

John Murray asked Darwin if he would rewrite his *Journal* for the Colonial and Home Library. This Darwin did, reducing its length considerably and,

perhaps with hindsight, stressing the differences in the faunas of the various places visited. The series was a cheap one, in small type on small paper, and Darwin regretted that no maps were included. It first appeared in three numbers, in grey paper wrappers, in the summer of 1845 and as a volume in August. The parts issue seldom survives and it is usually seen in the scarlet cloth of the volume, as shown here. It is dedicated to Charles Lyell. Murray paid Darwin £150 for the copyright, the first money Darwin ever earned. The book in this form sold about 15,000 copies in Darwin's lifetime, so that he must have regretted the deal. [F13].

29. 1860 'Journal of researches' etc. Tenth thousand. 8vo, London, John Murray.

This printing is from stereos of 1845, but, although he did not own the copyright, Darwin was able to include a one page postscript of corrections. This is the final definitive text. These corrections were incorporated in their proper places in 1890, but all the editions and reprints which have appeared since, about 150 of them, are based on this text. Many modern printings use *The voyage of the Beagle* as their title; this form was first used by the Harmsworth Library edition of 1905. The page size was enlarged and the case was like that of the fifth thousand of *On the origin of species* of the same year, so that they make a twin pair on the shelf. [F20].

30. 1945 Barlow, Nora, editor. 'Charles Darwin and the voyage of the Beagle'. 8vo, London, Pilot Press.

Nora, Lady Barlow is the youngest child of Sir Horace Darwin and a most distinguished darwinian. The book contains letters from her grandfather to his sisters and his father, as well as extracts from his notebooks. [F1571].

31. 1969 Moorehead, Alan 'Darwin and the Beagle'. 4to, London, Hamish Hamilton. 1971 Harmondsworth, Penguin.

For those who like Moorehead's prose style, this is an excellent table book, but it is a pity that no naturalist checked the facts. Its value lies in the illustrations, many in colour and almost all from a wide selection of contemporary sources.

32. 1977 Stanbury, David, editor. 'A narrative of the voyage of H.M.S. Beagle' etc., 8vo, London, Folio Society.

Captain Robert FitzRoy's narrative of the second voyage of the Beagle, Darwin's voyage, was written in a heavy and involved style and has never been reprinted, except in a facsimile of the whole set. Nevertheless it does

contain much that is of interest and relevance to Darwin students. The editor gives extracts, partly in précis, of FitzRoy's narrative, supplemented with some from the accounts of Darwin, Lieutenant Bartholomew Sullivan and Midshipman Philip King. It has lovely colour plates, mostly from the water colours of Conrad Martens.

33. 1979 Keynes, Richard Darwin, editor. 'The Beagle record; selections from the original pictorial records and written accounts of the voyage of H.M.S. Beagle'. 4to, Cambridge, University Press.

Professor Keynes F.R.S. who edited this sumptuous book, has today renamed our Biological Sciences Building the Darwin Building and unveiled a plaque in memory of his great grandfather, who died one hundred years ago. He is Professor of Physiology and Head of Department at Cambridge University. His mother, Margaret Keynes (1890–1974), was the third child of Sir George Darwin F.R.S. (1845–1912), who was Charles Darwin's second son and fifth child. The book is particularly distinguished for its illustrations, many of them in colour, and for the catalogue of those works of Conrad Martens (1801–1878) which were produced whilst the artist was aboard the Beagle.

34. 1935 Postage stamps, Ecuador, 2, 5, 10, and 20 centavos.

These stamps were issued to commemorate the centennial year of the visit of the Beagle, with Darwin on board, to the Galápagos Islands. She arrived from Callao on 16 September 1835, and sailed for Tahiti on 20 October. The ten centavos stamp bears a head of Darwin with the Beagle under sail below. The head is engraved from a photograph taken in August 1868 by Julia Margaret Cameron at Freshwater in the Isle of Wight. This is the earliest postage stamp to bear a portrait of Darwin.

Fourth Case – BEAGLE RESULTS

As soon as he got back to England Darwin devoted a great deal of time trying to find people who would identify and describe the large amounts of material which he had collected. He hoped to get all the animals at least contained in a uniform series of books. In the event, he was only able to get the vertebrates, including the fossil mammals, done in this way. The geological results he covered himself. For the rest, some was covered in papers in journals, but much remained and indeed some remains to this day.

- 35. 1835 'The following pages contain extracts from letters addressed to Professor Henslow by C. Darwin, Esq.' 8vo, Cambridge, [University Press], for the Cambridge Philosophical Society. Not published.**

This is Darwin's first printed work. He knew nothing about its appearance until he received a letter, dated January 1836, from his sister Catherine. It reached him at the Cape of Good Hope on 1 June. He immediately replied that he was 'a good deal horrified' that 'what had been written without care or accuracy' should have been printed, 'but, as the Spaniard says "No hay remedio" '. The pamphlet was again reprinted, in type facsimile, in 1960, but it has never been published. [F1].

- 36. 1836 FitzRoy, Robert and Darwin, Charles, A letter containing remarks on the moral state of Tahiti, New Zealand &c. 'South African Christian Recorder', Volume II, Number 4, pp. 221–238. September.**

Darwin and Fitzroy had found considerable hostility to the missionaries in South Africa, but had themselves found that the work done by them in places that they themselves had visited was of considerable value. They wrote this letter together when at sea and posted it back to the Cape from either St Helena or Ascension. This is Darwin's first published, as opposed to printed, work. Few copies are known. Darwin's own copy of the paper alone is at Cambridge and there is a copy of the whole volume in the British Library. This xerox comes from a copy in Cape Town. [F1640].

- 37. 1837 (Remarks on the habits of the genera 'Geospiza, Camarhynchus, Cactornis', and 'Certhidea' of Gould.) 'Proceedings of the Zoological Society of London', Part V, Number LIII, p.. 49. Meeting of 10 May 1837. (Title from List of Contributors).**

John Gould, at the meeting on 10 January, had described thirteen species of finches in the genus *Geospiza*, with four subgenera, from material brought back by Darwin from the Galápagos Islands. Gould did not say from which

islands any of them came, nor indeed did Darwin note the facts in all cases. The twelve lines above, which make up Darwin's first independent published paper, is all that he was able to say at the meeting about 'Darwin's finches' which were to loom so large later in discussions on evolution in islands. [F1644.]

38. 1838 Darwin, Charles, editor. 'The zoology of the voyage of H.M.S. Beagle' etc. Volume I, part I, number 1. Richard Owen 'Fossil Mammalia, 4to, London, Smith Elder. Issued February 1838.

The zoology was issued in nineteen numbers, making up five parts which covered all vertebrates, from February 1838 to October 1843. The College possesses only the first number which is shown here. The recent facsimile, Number 39 below, is complete in every way except that the first plate is reduced to half size. Luckily this plate, in its proper size, is in the only number which we hold. [F8.i.]

39. 1838—1843 (1980) Darwin, Charles, editor. 'The zoology of the voyage of H.M.S. Beagle' etc. 4to, 5 parts in 3 volumes, London, Smith Elder. Facsimile, Wellington, N.Z., Nova Pacifica.

This fine facsimile is open at Mrs Gould's elegant, if largely imaginary, picture of the southern rhea which her husband John had described and named *Rhea darwinii* in February 1837. The gauchos of Patagonia had described this bird to Darwin, but he forgot and when Conrad Martens, the artist on the Beagle, shot one at Port Desire the bird was prepared for the pot before Darwin remembered. He then rescued what he could. Unfortunately, it had already been described in 1834 by Alcide d'Orbigny and its correct name is *Pterocnemia pennata*. It is now an endangered species, although it has recently been bred in the San Diego Zoological Gardens. [F10, facsimile].

40. 1842 'The structure and distribution of coral reefs; being the first part of the geology of the voyage of the Beagle' etc. 8vo, London, Smith Elder.

The Beagle passed through the Low or Dangerous Archipelago, which is made up of atolls, in November 1835, on her way to Tahiti, but she did not stop. The only coral islands which Darwin was able to study were those of the Cocos Keeling group, where he spent the first ten days of April 1836. Nevertheless, his conclusions on the formation of atolls and barrier reefs were amongst his most important geological contributions, and in general hold good today. The copy shown has a holograph letter from Darwin to Mrs Caroline Morris inserted. [F271].

41. 1844 'Geological observations on the volcanic islands visited during the voyage of H.M.S. Beagle . . . being the second part of the geology of the voyage of the Beagle' etc. 8vo, London, Smith Elder.

This second part of the geology of the Beagle and the third part, shown below at Number 42, do not have the cohesion of the first part, being a series of separate observations some of which had already been read at meetings of the Geological Society. [F272].

42. 1851 'Geological observations on coral reefs, volcanic islands, and on South America' etc. 8vo, London, Smith Elder.

It is clear that the demand for copies of Darwin's three geology books did not come up to expectations. It was a field for specialists and he was not yet well known. The unsold sheets were bound up to make this volume; the original three title leaves were scrapped and a new consolidated leaf printed. The volume is opened to show the third part, *South America*, which first came out in 1846. [F274].

Fifth Case – ON THE ORIGIN OF SPECIES

The origin of *The origin* is a well known story. Almost as soon as he had returned from the Beagle voyage, Darwin began accumulating facts on the species problem. As early as 1842 he wrote out a short sketch of his views which he followed by a longer one two years later. He hoped that, in the event of his early death, this second one would be published. However he went on collecting facts until he received Alfred Russel Wallace's manuscript from Ternate on 18 June 1858. He arranged for its publication with two short works of his own and started writing *The origin* at once. He intended it to be no more than an abstract of his views and he did not therefore survey previous views on the subject, nor did he include full details of his sources of information. There are six editions from 1859 to 1872, with further small changes in 1876. After that Darwin left the text alone. The obvious differences are the additions of the historical sketch and a table of differences between it and the previous edition which are added to the third edition, and the addition of a new chapter and a glossary to the sixth. Perhaps more important are the gradual changes of stress through the set, particularly in regard to Darwin's views on the inheritance of acquired characters.

43. **1909 Darwin, Francis, editor. 'The foundations of The origin of species; two essays written in 1842 and 1844'. 8vo, Cambridge, University Press.**

The essay of 1842 was first printed alone for presentation to delegates to the Cambridge festivities in commemoration of Darwin's birth, and the fiftieth anniversary of the publication of *The origin*, in June 1909. The above volume, which was produced for the public at about the same time, contains the first essay from the same setting of type, with the essay of 1844 added. [F1556].

44. **1975 Stauffer, Robert C., editor. 'Charles Darwin's Natural selection; being the second part of his big species book written from 1856 to 1858'. 8vo, London, Cambridge University Press.**

Darwin rewrote the first two chapters of what he had intended to be his big book on species and it was published in 1868 as *Variation of animals and plants under domestication*. The rest of the almost completed manuscript remained unpublished in his lifetime. This transcript represents Chapters III to X and parts of XI. [F1583].

45. **1859 'On the origin of species by means of natural selection, or the preservation of favoured races in the struggle for life'. 8vo, London, John Murray.**

This immaculate copy came to the College with the Francis Galton bequest. A note, loosely inserted, says that it was a presentation copy from Darwin to Galton, who was his half first cousin. All other known presentation copies are inscribed 'From the Author' in the hand of one of John Murray's clerks. 1,250 copies were printed of which about 1,190 were available for sale. However 1,500 were subscribed for by booksellers at Murray's autumn sale on 22 November and the book was on sale to the public from the 24th. The story, so often repeated, that all copies were sold on the first day is apocryphal, but is due to Darwin's own imprecise wording. [F373].

46. **1860 'On the origin of species' etc. Fifth thousand. 8vo, London, John Murray.**

When John Murray found that the first edition was oversubscribed for by the booksellers, he did not immediately reprint it, but gave Darwin a chance to read it through for small corrections. Darwin commented, on 21 December 1859, 'the new edition is only a reprint, yet I have made a few important corrections'. The best known of these is the dilution of the famous whale-bear story on page 184, at which the volume is opened. Richard Owen had

said that it was liable to misunderstanding, so it was reduced, 'but I have always regretted that I followed this advice, for I still think the view quite reasonable'. 3,000 copies were printed and the book appeared on 7 January. It sold well and, in spite of the large print run, Murray asked Darwin to start revising again in November of 1860. [F376].

47. 1861 'On the origin of species' etc. Third edition, seventh thousand. 8vo, London, John Murray.

The edition of 1860 had not been called 'second' on the title page, nevertheless this one is called 'third'. It was extensively revised and contains a table of differences between it and the edition of 1860, a type of table which was to appear in all subsequent editions. Some of Darwin's critics had complained that he had not sufficiently considered his predecessors in the general theory of evolution and he added an historical sketch to cover this. This sketch, in an earlier and shorter form, had already appeared in the fourth New York printing of 1860, as well as in German translation in the same year. This edition appeared in April in a run of 2,000 copies. [F381].

48. 1866 'On the origin of species' etc. Fourth edition, eighth thousand. 8vo, London, John Murray.

In this edition the text was again extensively altered and lengthened. Only 1,500 copies were printed and the case was altered, with 'Origin' and 'Species' in italic. [F385].

49. 1869 'On the origin of species' etc. Fifth edition, tenth thousand. 8vo, London, John Murray.

Yet again, Darwin revised the text considerably. He used the expression 'survival of the fittest', Herbert Spencer's term, for the first time; it appears first in the heading of Chapter IV. 2,000 copies were printed and the case was entirely altered, the spine title being reduced to 'Origin of species'. Up to this stage the book had been intended for a scientifically educated public and had sold, on average, a thousand copies a year. [F387].

50. 1872 'The origin of species' etc. Sixth edition, eleventh thousand. 8vo, London, John Murray.

This edition, which is usually regarded in error as containing Darwin's last alterations, appeared in February 1872 in a run of 3,000 copies. It is again ~~much~~ altered and has a new chapter, VII, inserted to confute the view of

the Roman Catholic biologist St. George Mivart. It was aimed at a wider public and printed in smaller type, the volume shorter, and with a glossary by W. S. Dallas added. The title changes, omitting the word 'On'. It is in this edition that the word 'evolution' is used for the first time, although it had been used in *The descent of man* in the previous year. It occurs twice on page 201 and three times on page 424. [F391].

51. 1878 'The origin of species' etc. Sixth edition, twentieth thousand. 8vo, London, John Murray.

This is the second printing of the final text as Darwin left it. It had first appeared in the eighteenth thousand in 1876. The changes are small, but certainly by Darwin himself and not mere corrections of printer's errors. It is this text which is used in all subsequent issues and editions by John Murray and in almost all editions produced by other publishers after the end of copyright. It is also the text on which most foreign translations are based. [F403].

Sixth Case – OTHER WORKS ON EVOLUTION

Almost all Darwin's other books bear some relation to his ideas on evolution, but the three which are, with related matter, contained in this case do so most closely.

52. [1839] (1968) 'Questions about the breeding of animals'. 4to, [?London, ?Richard Taylor.] Facsimile, London, Society for the Bibliography of Natural History. Sherborn Fund Facsimile No.3. Introduction by Sir Gavin de Beer.

Darwin used the unsatisfactory method of collecting scientific information, the printed questionnaire, three times. This is the earliest of them; it is particularly interesting because it shows, in print, rather than in Darwin's notebooks, how early he was collecting information on variation and inheritance. The answers obtained were intended for his big book on species which never appeared; they eventually became incorporated in *Variation under domestication*, 1868. Only two copies of the original are known to have survived. The facsimile shown above dates the original 1840, in error. Answers to some of the questions, in the Cambridge University Library, are dated 6 May 1839, so that it must have been printed earlier in that year, at about the time of Darwin's marriage. The address for replies is 12 Upper Gower Street, the only one of his works to bear this address. [F263].

53. **1868 'The variation of animals and plants under domestication'. [First edition, first issue.] 8vo, 2 Volumes, London, John Murray.**

Darwin had intended that this subject should form the first two chapters of his big book on species. When he abandoned the big book and wrote *The origin of species* instead, he continued to collect information on domestication until this, his longest book, was published. 1,500 copies appeared in January and quickly sold out. A further 1,250 were printed in February which gave him a chance to make considerable changes. He continued to modify his text, but the market in England was satisfied and he could not use his new material until the second edition of 1875. [F877].

54. **[1868] 'The variation of animals and plants under domestication'. 8vo, 2 Volumes, New York, Orange Judd.**

Darwin had sent advance sheets of the Second English printing to Professor Asa Gray of Harvard who arranged to have them printed for the American market at once. After they were ready, Darwin sent more corrections and additions and these were added on four inserted pages in the first volume. This edition therefore contains a text of the work which was never available in England. [F879].

55. **1868 Queries about expression for anthropological enquiry. 'Annual Report of the Board of Regents of the Smithsonian Institution', Miscellaneous Document No.86, for 1867, page [324].**

This is the third of Darwin's three printed questionnaires. It had first appeared in the previous year as a single leaflet, with slightly different versions printed in England and in America. Five copies of the English and one of the American versions are known to have survived. Darwin used the answers that he got for his book *Expression of the emotions*, 1872, and the names of twenty-nine people who had replied are given there. [F874].

56. **1872 'The expression of the emotions in man and animals'. 8vo, London, John Murray.**

This was written, in part at least, to refute the idea that the facial muscles of expression in man were a special endowment. Unlike his usual practice, John Murray had 7,000 copies printed in November, and a further 3,000 in 1873, so that Darwin was unable to make repeated corrections. The plates however had to be printed at least three times. In the first set they are numbered in Arabic, whilst they are referred to in the text by Roman numerals. [F1141].

- 57. 1871 'The descent of man, and selection in relation to sex'. [First edition, first issue.] 8vo, 2 volumes, London, John Murray.**

Darwin had avoided the logical outcome of the general theory of evolution, bringing man into the scheme, for twelve years and had been preceded in 1862 by T. H. Huxley's *Man's place in nature*. The two parts of the book are almost separate, although the last chapter does discuss sexual selection in man. The first issue, of 2,500 copies, came out on 24 February and a second, of 2,000 slightly altered, appeared in March. Two further printings were called for by the end of the year, making eight thousand in all. [F937].

- 58. 1971 'The descent of man, and selection in relation to sex'. 4to, [New York], Limited Editions Club, Adelaide printed.**

Several of Darwin's works have appeared in book club editions, but few of them have any pretensions to good bookmaking. This one is an exception. Designed and printed by Douglas Dunstan at the Griffin Press, it is in 12-point monotype baskerville on esparto paper. It is bound in wood veneer with a spine of oasis morocco. The text is unfortunately based on the second edition of 1874 and omits most of the second part. [F1043].

- 59. 1862 'On the various contrivances by which British and foreign orchids are fertilised by insects, and on the good effects of intercrossing'. 8vo, London, John Murray.**

Professor Asa Gray of Harvard wrote of this book that if it 'had appeared before "The Origin" the author would have been canonised rather than anathematised by the natural theologians'. It is Darwin's first volume of supporting evidence and was highly praised by botanists. It first appeared on 15 May, but was too specialised to sell well although a second edition was called for in 1877. It is the only Murray Darwin to be published between 1859 and 1910 which was not in green cloth. [F800].

Seventh Case – MISCELLANEOUS WORKS

Darwin is often thought of as a one book man, or at most two. *The origin* has been described as one of the most often printed and least often read books in the world. *The Voyage of the Beagle* is the second, not quite so often printed, but much more often read. This case shows the extraordinary width of his work, a classical work on taxonomy, a still readable biography, and above all the experimental work on plants which he undertook once he was settled in at Down House, with his own garden and greenhouse facilities.

60. [1849] 'Geology'. 8vo, London, William Clowes printed. Author's offprint from Herschel, Sir John F. W. Bart., editor, 'A manual of scientific enquiry; prepared for the use of Her Majesty's Navy, and adapted for travellers in general'. 8vo, London, John Murray, 1849.

This useful work went through six editions up to 1904, Darwin's article being revised by others. His contribution, Section VI, occupied pages 156 to 195 in the first edition. This copy of the repaginated author's offprint is inscribed in Darwin's own hand to an unknown recipient. [F327].

61. 1851, 1854 'A monograph of the sub-class Cirripedia, with figures of all the species'. 8vo, 2 volumes, London, Robert Hardwicke for the Ray Society. Ray Society Publications Number 21 for 1851 and Number 25 for 1853.

Darwin spent much of his time for eight years, beginning in 1846, on this work on barnacles, and on two corresponding volumes of the British fossil forms. They are his only contributions to formal taxonomy, but they were of great importance because he could always say 'I have done this kind of work myself' when he was accused of being a man of ideas who had not himself studied any group of animals in depth. These two volumes are still held in high regard. [F339].

62. 1865 (1969) 'On the movements and habits of climbing plants'. 8vo, London, Longman and Williams and Norgate. Facsimile, Brussels, Editions Culture et Civilisation.

This is the first of Darwin's works which is based largely on his own experimental work. The first edition appeared in the *Journal of the Proceedings of the Linnean Society of London*, Volume 9, Numbers 33 and 34, pp 1–128, a double number which contained some other matter. At the same time and from the same setting of type, the Society's publishers printed a few copies, without the other matter, for commercial sale. The work is usually seen in the much enlarged second edition of 1875. [F856].

63. 1875 'Insectivorous plants'. 8vo, London, John Murray.

These meticulous studies form a minor contribution to the evolutionary series by the study of the adaptations of such plants to impoverished conditions. Darwin himself carried out the observational parts, but was helped by various physiologists and chemists in the experimental work. His sons George and Francis drew most of the figures, but Darwin himself, who was no draughtsman, drew numbers seven and eight. The book appeared on

2 July in an edition of perhaps 1,250 copies, but three other impressions were called for within a year, in which Darwin was able to make small corrections in his usual way. [F1217].

64. 1876 'The effects of cross and self fertilisation in the vegetable kingdom'. 8vo, London, John Murray.

This survey of the nature of the mechanisms favouring cross fertilisation and the advantages to be gained by it was considered by Darwin to 'form a complement to that on the "Fertilisation of Orchids" '. It was too technical to command a wide sale. The first edition, of 1,500 copies, came out on 10 November 1876. [F1249].

65. 1877 'The different forms of flowers on plants of the same species'. 8vo, London, John Murray.

Much of the contents of this had previously been published in the *Journal of the Linnean Society of London* and elsewhere. Had Darwin not chosen such genetically complex examples, he might have approached more nearly to an understanding of the laws of particulate inheritance. The first edition, of 1,250 copies, was published on 9 July. [F1277].

66. 1879 Krause, Ernst 'Erasmus Darwin, Translated from the German by W. S. Dallas, with a preliminary notice by Charles Darwin'. 8vo, London, John Murray.

Krause's essay only considers Dr Darwin's scientific work. Darwin's study of his grandfather is his only biographical work, apart from a few paragraphs on Professor John Stevens Henslow. His part is longer than that of Krause, and he is particularly at pains 'to contradict flatly some calumnies by Miss Seward'. Anna Seward, the Swan of Lichfield, had, in 1804, published the only previous biography of Erasmus Darwin. It was Krause's contribution which initiated the longstanding, if one-sided, quarrel between Samuel Butler and Darwin. The book came out in November and Darwin notes in his *Autobiography* that by May 1881 only 800 or 900 copies had been sold. [F1319].

67. 1880 'The power of movement in plants'. 8vo, London, John Murray. Assisted by Francis Darwin.

This was an extension of the work on climbing plants to show that the same mechanisms hold good for flowering plants in general. It was another

book for specialists and seems to have sold fewer copies than any other. It was published on 6 November and 1,500 copies were sold at Murray's autumn sale. Francis Darwin had moved back to Down House, with his infant son Bernard, after the death of his first wife. He acted as research assistant to his father for some years. [F1325].

68. 1881 'The formation of vegetable mould, through the action of worms, with observations on their habits'. 8vo, London, John Murray.

This, his last book, is outside the main stream of Darwin's work and reverts to his geological interests. He had indeed published papers on mould in 1838 and 1840. The famous 'worm stone' was made for him by his son Horace at what was to become the Cambridge Instrument Company; it can still be seen in the garden of Down House. The book first appeared on 10 October and was immediately successful, selling 6,000 copies within a year and 13,000 by the end of the century. [F1357].

Eighth Case – DARWIN IN MANY TONGUES

The works of Darwin have been translated into more languages than those of any other scientist, with the possible exception of the first books of Euclid which have been extensively used as school texts. *The Origin* has appeared in at least thirty languages, *Journal of researches* in twenty-three and *The descent of man* in nineteen. Not only have they been printed, but they have continued in print and many are in print today. However they are seldom seen in libraries outside their countries of origin. There is a fine collection at Cambridge, many of the early ones from Darwin's own shelves, and the British Museum (Natural History) has put together a representative collection fairly recently. The College does not possess a single one, but there is no reason why it should. The ones shown here are not only recent editions but also in most cases popular editions, some in paper back, to show that they are not produced for a library trade but for the general public. All have been bought as new since this exhibition was first suggested about eighteen months ago.

69. **1973** ['On the origin of species' — Arabic.] 8vo, Beirut and Baghdad, Maktabat Al-Nahdah. Translated and with an introduction and notes by Ismail Mazhar.

The earliest translation into Arabic appeared in Cairo in 1918, the first five chapters only. The first complete translation did not appear until 1964, again in Cairo. This one is a reprint of it. [Warren D. Mohr, Stanford, Calif.]

70. **1974** ['On the origin of species' — Chinese.] 8vo, Shanghai, Renmen Press. Translated by Shih Yüng-cheng and others.

The first appearance of any of Darwin's work in Chinese was in 1902–03 when the Historical Sketch to *The Origin* appeared in the journal *Yokohama Hsin-min tsung Pao*, translated by Dr Ma Chun-wu. The Sketch and Chapters I–V of the text appeared in Shanghai in 1904, but the whole work did not appear until 1920, with the same translator. There have been a number of later editions of *The origin*, of which this one seems to be the latest. [Chou Pang-li, Shanghai.]

71. **1980** 'Lajien synty; lyhentäen toimittanut Richard E. Leakey'. 4to, Helsinki, Kirjayhtymä. Translated by Anto Leikola.

The full text of *The origin* first appeared in Finnish in eight parts between 1913 and 1917. Dr Leakey's illustrated version of what he thought Darwin wrote appeared in English in 1979 and has been translated into a number of European languages since. This version was printed in England. [Dr Anto Leikola, Helsinki.]

72. **1980** 'Die Entstehung der Arten durch natürliche Zuchtwahl'. 8vo, Stuttgart, Philipp Reclam jun. Universal-Bibliothek Nr 3071[10]. Translated by Carl W. Neumann. Foreword by Gerhard Heberer.

The first foreign language in which *The origin* appeared was German. The house of Schweizerbart at Stuttgart produced it in 1860 and the same house was to produce almost all of Darwin's later works. The translator was H. G. Bronn, a distinguished zoologist, but he made free with the text and added footnotes which Darwin found distressing. It was revised in 1863 by J. V. Carus to Darwin's entire satisfaction. The present translation first appeared in 1921 and has been kept in print in this popular series ever since. [Negley Harte, History Department, UCL.]

73. 1965 ['On the origin of species' — Hebrew.] 8vo, Jerusalem, Bialik Institute. Translated and with an introduction by Saul Adler.

The earliest Hebrew edition of *The origin* only appeared as late as 1960 and this copy is a reprint of it. However *The descent of man* had been translated into Yiddish in New York in 1921 and in Warsaw in 1936. [Dr Douglas Wertheimer, Calgary, Alberta.]

74. 1964 ['On the origin of species' — Hindi.] 8vo, Lucknow, Hindi Samiti, Information Department U.P. Translated by Umasankar Srivastava.

This seems to be the only translation of *The Origin* into Hindi and it is not recorded in any other language on the Indian subcontinent. [Dr A. K. Mittal, Banaras Hindu University.]

75. [?1978] 'Origem das espécies, no meio da seleccao natural ou a luta pela existencia na natureza'. 8vo, Oporto, Lello and Irmao. Biblioteca Racionalista. Translated by Joaquim Dá Mesquita Paul.

The earliest translation of *The Origin* into Portuguese appeared in 1912, with the same translator and publisher as the present edition. [Bartolomeu dos Santos, Slade School, UCL.]

76. 1981 'El origen de las espécies'. 8vo, Madrid, EDAF. Coleccion Biblioteca de Bolsillo No.38. Translated by Anibal Froufe.

The Origin was first translated into Spanish in 1877, an edition which prints two letters from Darwin which are not found elsewhere. The present translation first appeared in 1963 and has been printed several times since. [Nissa Torrents, Spanish Department, UCL.]

77. 1976 'Om arternas uppkomst, genom naturligt urval eller de bäst utrustade rasernas bestand i kampen för tillvaron'. 8vo, Stockholm, Natur och Kultur. Translated by Roland Adlerberth. Annotated by Kaj Bohman. Preface by Ake Gustafsson.

The Origin first appeared in Swedish in 1871, but until the appearance of this edition, had not been printed since 1919. [Presented by the Publisher.]

MISCELLANEOUS

78. H.M.S. Beagle, 1820–1870

Darwin's *Journal* and the scientific results of his tour round the world on the second voyage of H.M.S. Beagle are shown in the third and fourth cases. The importance of this tour on the later development of his scientific thought has often been discussed, indeed often exaggerated. This picture is put in to show what the Beagle was like. His (later Her) Majesty's Ship Beagle, sometimes called H.M. Surveying Vessel, was the third of her name. She was built as a sloop brig at Woolwich and launched on 11 May 1820. She was at first rigged as a brig, but in 1825 converted to a barque. Her displacement was 235 tons, with a gun deck length of ninety foot and extreme width of twenty-four foot six inches. She was Number 41 of a class of 107 ten gun brigs which were nicknamed coffins for their ability to go down in severe weather, or half-tide rocks because the main deck easily became swamped. On Darwin's voyage this deck was raised about a foot and she carried two 9lb guns and four carronades. Her complement was seventy-four to which were added three Fuegian natives and Darwin himself. After her third voyage, she was paid off for the last time on 20 October 1843 and became a Coastguard Watch Vessel on the Roach at Pagglesham in Essex. Finally on 13 May 1870 she was towed to the Thames and scrapped. No part of her is known to have survived. The photograph is from a Revell scale model, about 1 to 110.

79. Charles Darwin, 1840

From a water colour by George Richmond, R.A. (1809–1896). Charles had intended to have this done, with a twin portrait of Emma, in 1839, as wedding portraits, but they seem to have delayed until March 1840. Richmond was a fashionable portrait artist in water colour or pencil for many years. He tended to flatter his sitters. This is the first likeness of Darwin in any medium, except for a pastel with his sister Emily Catherine made when he was seven or eight. This particular photographic print, from the original at Down House, appeared in 1969.

80. Charles Darwin, 1849

This lithograph was made by Thomas Herbert Maquire (1821–1895) from a sketch, which does not survive, made by him at Down House. Darwin is seated in the armchair of the study set. George Ransome, agricultural chemist of Ipswich, commissioned a set of sixty portraits of scientists and local worthies in 1849 and 1850 for the British Association meeting at

Ipswich in 1851. They are known as the Ipswich Museum Series. In the event, Darwin did not go to the meeting. This is the only engraving of Darwin done from life, all the others being based on paintings or photographs by other artists.

81. Charles Darwin, 1854

This photograph derives from a series of studio studies taken by the firm of Maull and Polyblank by the albumen paper negative process. Darwin changed both his trousers and his waistcoat during the session, so that in some prints he is wearing check trousers and waistcoat and his head is in profile, whilst in others, as here, he has a flowered waistcoat and dark trousers and he is full faced. The firm, later Maull and Fox, rephotographed them and they were available commercially for a long time. This photogravure, with engraved signature and date 1854 added, is dated below '19th day of April, 1912', the thirtieth anniversary of Darwin's death. These prints are the last pictures of Darwin, in any medium, taken before he grew his beard.

82. Charles Darwin, 'Ape' cartoon, 1871

Carlo Pellegrini (1839–1889) produced this, the best known of all cartoons of Darwin, as Number 33 in his 'Man of the Day' series in *Vanity Fair* for 10 September 1871. From 1869 onwards, he usually signed his cartoons 'Ape', but this one is not signed. It was available for commercial sale in two sizes, thirty-one and eighteen centimetres high, the former shown here, being better coloured.

83. Charles Darwin, between 1873 and 1880

Washed India ink drawing by Louisa Ann Nash. Mrs Nash was the wife of Wallis Nash (1837–1926) an American lawyer who was one of the fathers of the State of Oregon. They took a house in Downe for some years and became friendly with the Darwins. The portrait is now owned by a granddaughter of Mrs Nash at Corvallis, Oregon. The original has been exhibited at the University of Oregon, but its owner does not allow it to be reproduced for commercial gain and it appears never to have been seen in this country. It is the only original portrait of Darwin made in his lifetime which is in the United States, or anywhere else outside the British Isles. It is also the only portrait, other than the 'Ape' cartoon Number 82 above, which shows a smiling Darwin. The reproduction is a photograph.

84. Charles Darwin, 1881

Copper engraving by Leopold Flameng (1831–1911), from oil painting by Hon. John Collier, R.A. (1850–1934). The print is dated 'March 10, 1883, Fine Art Society (Limited)', and has engraved signatures of the painter and the engraver. The painting was commissioned by The Linnean Society in 1881 and Darwin sat for it in August of that year. It now hangs in their rooms at Burlington House. There is a copy by the artist, made in 1883, in the National Portrait Gallery; it was presented by William Erasmus Darwin in 1896. It is the last portrait of Darwin which was painted in his lifetime. On 16 February 1882, Darwin wrote to thank Collier, 'everybody whom I have seen and who has seen your picture of me is delighted with it. I shall be proud some day to see myself suspended at the Linnean Society'. He never did. Francis Darwin wrote 'many of those who knew his face most intimately think that Mr Collier's picture is the best of the portraits'. Collier was the son of Sir Robert Porrett Collier, first Baron Monkswell, and, twice over, son-in-law of Thomas Henry Huxley.

85. New study at Down House, 1882

This copper engraving was made a week after Darwin's death, before the study had been disturbed, by Axel Hermann Haig (1835–1921). It is signed in pencil by Haig and he notes on it that this copy is the only proof in his possession. Haig, also known as Hägg, was a Swede, better known as an architect, who worked in England. Darwin used the old study from the time that he moved to Down House until early in 1881; it is that room which is today furnished, as nearly as possible, as it was in his lifetime. The room shown here was built as a billiards room in the north corner of the house in 1877; however Darwin moved his study there in the spring of 1881.

86. Charles Darwin, 1890

The blue and white plaster plaques which are used to decorate the show cases are cast from a die which is derived from one made by Allan Wyon in 1890. The Darwin Medal of the Royal Society is from a reduced die from this medallion. These plaques are made at Down House for sale.

87. Charles Darwin, 1905

This plaster cast, of a bust by Horace Mountford, was purchased by Professor Karl Pearson from the artist in 1909. A terracotta made in 1905 is in the National Portrait Gallery and there is a bronze at the Royal Botanic Gardens,

Kew. Letters in the Pearson archive show that it cost £2 and was delivered from the artist's studio at Clapham on 4 March in a greengrocer's van. This bust was used as a basis for the life size seated figure which was unveiled outside Darwin's old school at Shrewsbury, also in 1909. The buildings are now the Public Library and the statue is still there. 1909 was the centenary of Darwin's birth, as well as the fiftieth anniversary of the publication of *On the origin of species*.